

SPECIAL CONTRIBUTIONS.

RECENT PUBLICATIONS.

By W. F. R. PHILLIPS, M. D., in charge of Library, Weather Bureau.

The following list of titles includes principally the annual and occasional publications that have been added to the library during the month ending April 7, 1898. Most of these works have been received in exchange for the publications of the Weather Bureau; a few have been obtained by purchase.

The numerous monthly and periodical publications are generally omitted because of lack of space.

Annales de l'Observatoire Royal de Bruxelles, publiées aux frais de l'état. Nouvelle série. Annales météorologiques. Tome III. 4°. P. 515 Bruxelles, 1895. Tome IV. 4°. P. 357 Bruxelles, 1895.

Annals of the Astronomical Observatory of Harvard College. Edward C. Pickering, Director. Vol. XLII. Part 1. Observations made at the Blue Hill Meteorological Observatory, Massachusetts, U. S. A., in the year 1896, under the direction of A. Lawrence Rotch, A. M. With appendices containing investigations of cloud forms, and of the air by means of kites. 4°. P. viii-128. Plates. Cambridge, 1897.

Annuaire de l'Observatoire Municipal de Montsouris [Paris] pour l'année 1898. (Analyse et Travaux de 1896). Météorologie, chimie, micrographie, applications à l'hygiène. P. xii-636 24°. Paris, 1898.

Atlas der Oesterreichischen Alpenseen mit Unterstützung des hohen k.k. Ministeriums für Cultus und Unterricht herausgegeben von Dr. Albrecht Penck, Professor der Geographie an der Universität Wien und Dr. Edward Richter, Professor der Geographie an der Universität Graz. I Lieferung: Die Seen des Salz Kammergutes, 18 Karten, und 100 profile auf 12 tafeln. Hauptsächlich nach den lothungen von Hofrat Dr. Friedrich Simony, Em. Professor der Geographie an der Universität Wien entworfen und gezeichnet von Dr. Johann Müllner. Geographische Abhandlungen herausgegeben von Prof. Dr. Albrecht Penck in Wien. Band VI. Heft I. 15 x 18. Wien, 1895. II Lieferung: Seen von Karnthen, Krain, und Südtirol. 10 Karten und 32 profile auf 9 tafeln. Hauptsächlich nach eigenen lothungen entworfen von Prof. Dr. Edward Richter. 15 x 18. Wien, 1896.

Aurora Australis by H. C. Russell, B. A., C. M. G., F. R. S. 8°. P. 8. Sydney, 1897.

Bemerkenswerthe Sturme X. Von Prof. Dr. W. J. van Bebber. Annalen der Hydrographie und Maritimen Meteorologie. Januar 1898.

Blue Hill Meteorological Observatory. A. Lawrence Rotch, Director. A study of Special Cloud Forms, by Arthur E. Sweetland. Reprinted from the Annals of the Astronomical Observatory of Harvard College. Vol. XLII. Part I. [11] p. Plate. 4°. Cambridge, 1897.

Blue Hill Meteorological Observatory. A. Lawrence Rotch, Director. Bulletin No. 2. 1898. Examples of the Diurnal and Cyclonic Changes in Temperature and Relative Humidity at Different Heights in the Free Air, by H. Helm Clayton. 4°. P. 4.

Blue Hill Meteorological Observatory. A. Lawrence Rotch, Director. Exploration of the Air by Means of Kites. I. Kites and Instruments by S. P. Fergusson. II. Results from the Kite Meteorographs and Simultaneous Records at the Ground. III. Discussion of the Observations, by H. Helm Clayton. Reprinted from the Annals of the Astronomical Observatory of Harvard College. Vol. XLII. Part I. 4°. P. 128. Plates. Cambridge, 1898.

Boletin de Agricultura e Industrias publicado por la Secretaría de Fomento, Colonización e Industria de la República Mexicana. Año VI. Núm. 11. Mayo de 1897. 12°. P. iv-312. Mexico, 1897. Num. 42. Junio de 1897. 12°. P. iv-233. Mexico, 1897.

Boletin de la Sociedad Geográfica de La Paz. Bolivia, 1898. Año I. Tomo I. No. I. 8°. P. 159. La Paz.

Bulletin Mensuel de "Biarritz Association" Societe des Sciences, Lettres, et Arts. Janvier 1898.

Commission Météorologique de la Gironde. Observations Pluviométriques et Thermométriques faites dans le Département de la Gironde de Juin 1896 à Mai 1897. Note de M. G. Rayet, Président de la Commission Météorologique Départementale. Append. au tome III, 5me série des Mem. de la Soc. des Sc. Phys. et Nat. de Bordeaux. 69 p. 8°. Bordeaux 1897.

Cumulative Index to a selected list of periodicals. Authors, subjects, titles, reviews, portraits. Second annual volume. 1897. Edited and published by the Public Library, Cleveland, Ohio, U. S. A. P. 635. 4°. Cleveland, 1898.

Department of Public Instruction. Meteorology of New South Wales. Results of Rain, River, and Evaporation Observations made in New South Wales, during 1896, with maps and diagrams, by H. C. Russell, B. A., C. M. G., F. R. S., Government astronomer. 8°. P. liii-209. Sydney, 1897.

Deutsches Meteorologisches Jahrbuch für 1896. Beobachtungs-System der Deutschen Seewarte. Ergebnisse der Meteorologischen Beobachtungen an 10 Stationen II. Ordnung und an 48 Signalstellen, sowie Stündliche Aufzeichnungen an 4 Normal Beobachtungen Stationen. Jahrgang XIX. (Einundzwanzigster Jahrgang der Meteorologischen Beobachtungen in Deutschland). Herausgegeben von der Direktion der Seewarte. 4°. P. viii-189 Hamburg, 1897.

Die Hauptwetterlagen in Europa. Von Prof. Dr. W. J. Van Bebber, Abtheilungsvorsteher der Deutschen Seewarte. 4°. P. 16. Annalen der Hydrographie und Maritimen. Oktober, 1897.

Ergebnisse der Meteorologischen Beobachtungen im Systeme der Deutschen Seewarte für das Dezennium 1886-1895. Herausgegeben von der Direktion der Seewarte. 4°. P. v-10. Hamburg, 1898.

Ergebnisse der Untersuchung der Hochwasserverhältnisse im Deutschen Rheingebiet. Auf Veranlassung der Reichskommission zur Untersuchung der Stromverhältnisse des Rheins und seiner wichtigsten Nebenflüsse und auf Grund der von der Wasserbaubehörden der Rheingebietsstaaten gelieferten Aufzeichnungen, bearbeitet und herausgegeben von dem Centralbureau für Meteorologie und Hydrographie im Grossherzogthum Baden. V. Heft. Auftreten und Verlauf des Hochwassers vom März 1896. 4°. P. 55. Charts. Berlin, 1898.

Geographische Abhandlungen. Herausgegeben von Dr. Albrecht Penck, Professor der Physikalischen Geographie an der Universität Wien. Band I, 1886. 4°. P. x-478, and Charts. Wien, 1887. Band II, 1887. 4°. P. viii-490 Wien, 1888. Band III. 4°. P. viii-435 and Charts. Wien, 1889. Band IV. 4°. P. iv-483 Charts. Wien, 1890. Band V. 4°. P. xxiii-508 Wien, 1891. Band VI. Heftes 1 und 2. 4°. P. 114 und 71. Charts. Wien, 1897.

Handbuch der Klimatologie von Julius Hann. Zweite wesentlich umgearbeitete und vermehrte Auflage. 8°. Band I. P. xii-404. Band II. P. viii-384. Band III. P. viii-576. Stuttgart, 1897.

Indian Meteorological Memoirs. Being occasional discussions and compilations of meteorological data relating to India and the neighboring countries. Published by order of his excellency, the Viceroy and Governor General of India in council, under the direction of J. Eliot, M. A., F. R. S., C. I. E., Meteorological Reporter to the Government of India. Vol. VII. Meteorological observations recorded at the Trevandrum Observatory during the years 1853 to 1864, under the superintendence of the late J. Allan Broun, Esq., F. R. S., edited by J. Eliot, Meteorological Reporter to the Government of India. Part VII. Force of Wind. June, 1853—April, 1856. Velocity of Wind. May, 1856—December, 1864. 4°. P. 139. Simla, 1897.

Jahrbuch der Astronomie und Geophysik. Enthaltend die wichtigsten Fortschritte auf den Gebieten der Astrophysik, Meteorologie und physikalischen Erdkunde. Unter Mitwirkung von Fachmännern herausgegeben von Dr. Hermann J. Klein. VIII Jahrgang 1897. P. viii-370. 8°. Leipzig, 1898.

Minerva. Jahrbuch der Gelehrten Welt. Herausgegeben von K. Trübner. Siebenter Jahrgang 1897-1898. P. xxiv-1130. 24°. Strassburg, 1898.

Ministerio de Instrucción Pública y Fomento (Bolivia.) Revista de la Oficina Nacional de Emigración, Estadística y Propaganda Geográfica. Año 1897. No. I. 8°. P. iii-267. La Paz.

Mississippi River Commission. Stages of the Mississippi River and its Principal Tributaries for 1897. Compiled at the Secretary's Office. P. xliv-65. 8°. (St. Louis). 1898.

Observations Magnétiques faites à l'Observatoire du Parc Saint-Maur pendant les années 1894, 1895, par M. Th. Moureaux. N. p. 4°.

Determinations Magnétiques faites en France pendant les années 1894, 1895, et 1896, par M. Th. Moureaux. N. p. 4°. N. d.

Observaciones Magnéticas y Meteorológicas del Real Colegio de Belén fie la Compañía de Jesús en la Habana. Año de 1896. 4°. P. 56 et cartas. Habana, 1898.

The same, año de 1897. 4°. P. 60 and charts, Habana, 1898.

Proceedings of the American Academy of Arts and Sciences. Vol. XXXIII. No. 9. January, 1898. Contributions from the Chemical Laboratory of Harvard College. On the oxide of Dichloromethoxyquinonedibenzoylmethylacetal by C. Loring Jackson and H. A. Torrey. 8°. P. 141-170. No. 10. Contributions from the Chemical Laboratory of Harvard College. On

the colored compounds obtained from sodic alcoholates and picrylchloride, by C. Loring Jackson and W. F. Boos. 8°. Pp. 173-182. No. 11. February, 1898. The Analysis of the Action of the vagus nerve upon the heart. By Dr. L. J. J. Muskens. 8°. Pp. 185-188. No. 12. February, 1898. Certain considerations concerning the Coinage of the Colony and the public bills of credit of the province of the Massachusetts Bay. By Andrew McFarland Davis. 8°. Pp. 191-211.

Rainfall in South Australia and the Northern Territory during 1896; with Weather Characteristics of each Month. By Charles Todd, K. C. M. G., M. A., F. R. S., etc. Government astronomer, etc. P. 75 and charts. 4°. Adelaide, 1897.

Report of the Condition and Progress of the G. V. Juggarow Observatory, Vizagapatam, including the results of observations for the year 1896. Published by the General Committee, G. V. Juggarow Observatory, Vizagapatam. 8°. P. 38 and charts. Calcutta, 1897.

Report of the Meteorological Council, for the year ending March 31, 1897, to the President and Council of the Royal Society. P. 123. 8°. London, 1897.

Smithsonian Miscellaneous Collections. 1087. A catalogue of Earthquakes on the Pacific Coast 1769 to 1897, by Edward S. Holden, L. L. D., Member of the National Academy of Sciences. 8°. P. 253. Washington, 1897.

Transactions of the Astronomical and Physical Society of Toronto, for the year 1897, including eighth annual report. P. x-154-6. 8°. Toronto, 1898.

The 7-Day Auroral Period and the Moon. By H. Helm Clayton. 8°. Pp. 81-87. From the American Journal of Science, Vol. V. 1898.

[U. S.] Department of the Interior, U. S. Geological Survey. Charles D. Walcott, Director. Report of Progress of Stream Measurements for the Calendar Year 1896. By Author Powell Davis. Extract from the Eighteenth Annual Report of the Survey, 1896-1897. Part IV—Hydrography. P. 408. 4°. Washington, 1897.

[U. S.] Hydrographic Office. No. 100. Sailing Directions for the Gulf and River St. Lawrence. Second edition. 8°. P. viii-413. Washington, 1897.

[U. S.] Department of the Interior. Water Supply and Irrigation papers of the United States Geological Survey. No. 10. Irrigation in Mesilla Valley, New Mexico. [F. C.] Barker. P. 51. 8°. Washington, 1898.

Veröffentlichungen des K. Preuss. Meteorologischen Instituts herausgegeben durch dessen Direktor Wilhelm von Bezold. Ergebnisse der Magnetischen Beobachtungen in Potsdam im Jahre 1896, und Internationale magnetische simultanbeobachtungen 1896. 4°. P. 43-xxxiii und karten. Berlin, 1898.

Weather Harmonics by H. Helm Clayton. 4°. P. 4. Reprinted from Science. N. S. Vol. VII. No. 164.

Year-Book of the Royal Society [London] 1897-1898. 8°. P. 172. London, 1898.

Zusammenstellung der Monats-und Jahres-Mittel der Privat-Wetterwarte für die "Isis" zu Meissen im Jahre 1897. Bearbeitet von Karl Gebauer. 8°. P. 7 und Karte. Meissen, 1898.

METEOROLOGICAL OBSERVATIONS AT PORT AU PRINCE, HAYTI.

Through the kind cooperation of Prof. T. Scherer of Port au Prince, Hayti, the meteorological observations taken by him at 7 a. m., local time, or 11:49 a. m., Greenwich time, are communicated in manuscript for early publication in the MONTHLY WEATHER REVIEW. By entering these on the monthly and annual charts, published by the Weather Bureau, we obtain an important extension southeastward of our field of study. The observations are taken 1^h 11^m earlier than those of the Weather Bureau telegraph system. The original reports are in metric measures; the conversions are by the Editor.

The barometer is 119 feet above sea level; its readings have been corrected by Professor Scherer for temperature, elevation, and gravity, this latter correction is -0.064 inch; the thermometers are 6.7 feet above ground; the rain gauge, 7.2 feet above ground. The wind velocity is given in miles per hour.

The position of Port au Prince, Hayti, is latitude 18° 34' N., longitude 72° 21' W., or 4° 49' west of Greenwich. Additional records for this station are published in the annual volume of the Central Meteorological Institute at Vienna.

Observations at Port au Prince, Hayti.

MARCH, 1898.

Date.	Barometer reduced.	Tempera-ture.		Wind.	Clouds.		Preceding 24 hours.		Total rain.	Tempera-ture.	
		Air.	Dew-point.		Rel. humidity.	Direction.	Velocity.	Kind.	Amount.	Direction.	
	Inches	°	%								
1	29.98	68.0	60.3	90	e.	2	es	3	.....	.....	0.00 85.5 66.9
2	30.02	72.1	60.6	75	ese.	4	cs	1	.....	.....	0.00 91.4 70.3
3	30.00	72.5	60.4	83	ese.	4	ak	1	sw.	.....	0.00 91.4 70.9
4	30.04	73.8	55.6	62	ene.	4	k	9	.....	.....	0.59 91.2 71.6
5	30.06	71.2	63.7	91	.....	0	cs	8	.....	.....	0.92 86.0 69.8
6	30.04	72.3	60.6	83	.....	0	s	1	.....	.....	0.23 87.4 69.3
7	29.98	73.6	60.6	76	.....	0	ck	6	w.	.....	0.62 86.0 70.0
8	29.95	71.6	66.0	36	ne.	2	n	10	.....	.....	0.00 84.4 69.8
9	29.98	72.9	64.0	88	.....	0	k	8	.....	.....	0.16 85.3 70.3
10	29.96	69.6	62.4	92	e.	2	.....	0	.....	.....	0.00 85.6 68.0
11	29.95	72.3	56.3	67	se.	9	.....	0	.....	.....	0.00 85.6 67.6
12	29.96	74.8	54.0	56	e.	9	k	2	.....	.....	0.00 86.4 69.8
13	30.00	68.0	50.2	58	.....	0	.....	0	.....	.....	0.00 84.7 68.0
14	30.01	67.3	48.6	54	ne.	11	.....	0	.....	.....	0.00 85.8 66.2
15	30.04	67.3	50.7	61	se.	4	cs	1	.....	.....	0.00 86.5 64.9
16	30.06	71.7	52.5	59	se.	7	.....	0	.....	.....	0.00 87.3 67.8
17	30.04	70.7	53.6	61	ese.	9	.....	0	.....	.....	0.00 89.1 69.1
18	30.06	70.9	53.8	71	se.	11	.....	0	.....	.....	0.00 87.8 68.5
19	30.10	70.2	54.9	68	e.	7	.....	0	.....	.....	0.00 89.4 68.5
20	30.13	71.6	54.0	62	se.	9	.....	0	.....	.....	0.00 89.6 68.5
21	30.12	72.0	51.8	55	e.	9	.....	0	.....	.....	0.00 90.5 70.0
22	30.11	69.4	57.6	78	ese.	2	.....	0	.....	.....	0.00 89.8 66.6
23	30.12	73.6	57.4	67	se.	2	.....	0	.....	.....	0.00 93.6 69.3
24	30.12	72.0	57.2	70	ese.	2	k	6	.....	.....	0.00 89.1 69.1
25	30.10	71.4	59.5	78	.....	0	.....	1	.....	.....	0.00 88.7 68.2
26	30.10	75.2	54.0	55	ese.	7	.....	0	.....	.....	0.00 89.2 73.4
27	30.05	70.3	51.1	56	se.	4	.....	0	.....	.....	0.00 90.5 67.5
28	30.01	74.1	54.0	57	.....	0	k	2	ne.	.....	0.00 88.3 70.7
29	30.04	73.9	54.1	58	se.	9	s	1	.....	.....	0.00 88.5 69.6
30	30.06	72.1	52.0	57	se.	11	k	10	wnw.	.....	0.00 88.3 70.3
31	30.06	72.0	58.3	72	ese.	7	cs	4	.....	.....	0.00 88.2 69.9
Sum.		.....		.....		.....		.....		1.92	
Means.		30.04		71.6		56.5		69.5		2.5	
										88.2	
										69.1	

MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of Señor Mariano Bárcena, Director, and Señor José Zendejas, vice-director, of the Central Meteorologico-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the *Boletín Mensual*; an abstract translated into English measures is here given in continuation of the similar tables published in the MONTHLY WEATHER REVIEW during 1896. The barometric means have not been reduced to standard gravity, but this correction will be given at some future date when the pressures are published on our Chart IV.

Mexican data for March, 1898.

Stations.	Altitude.	Mean barometer.	Temperature.			Relative humidity.	Precipitation.	Prevailing direction.	
			Max.	Min.	Mean.			Wind.	Cloud.
Aguascalientes.....	6,106	23.87	92.0	42.8	66.2	32	0.00	sw.	w.
Arteaga (Coahuila).....	5,414	.....	92.1	35.8	70.7	0.12	.....	.....	.....
Barousse (Coahuila).....	5,414	.....	86.4	27.7	67.8	0.71	.....	.....	.....
Colima (Sem.).....	5,934	24.25	86.5	37.6	65.3	32	1.69	.....	.....
General Cepeda.....	5,934	24.25	97.7	29.3	67.5	.....	.....	.....	.....
Leon.....	5,934	24.25	86.5	37.6	65.3	32	T.	ww.	ww.
Linares (New Leon).....	1,188	28.70	94.3	48.2	68.9	75	1.01	se.	.....
Mazatlán (Sinaloa).....	4,948	25.04	91.0	43.0	71.6	60.8	0.24	ne.	n.
Merida (Yucatan).....	50	29.93	96.8	57.6	78.8	57	0.53	ese.	se.
Mexico (Obs. Cent.).....	7,472	23.02	84.2	39.2	62.2	44	0.69	nw.	sw.
Morelia (Seminario).....	6,401	23.93	85.8	43.0	65.1	52	0.28	sw.	w.
Oaxaca.....	5,164	25.04	91.0	43.0	71.6	51	0.36	sw.	sw.
Parros (Coahuila).....	3,986	.....	90.0	29.3	68.7	0.59	.....	.....	.....
Saltillo (Col. S. Juan).....	5,339	24.73	90.5	27.9	63.9	69	0.35	n.	n.
San Isidro (Hac. de).....	6,202	24.09	88.8	37.6	64.6	60	0.25	e.	w.
San Luis Potosí.....	6,202	24.09	94.1	39.2	70.9	0	0.08	.....	.....
Silao (Guanajuato).....	6,063	24.23	82.9	46.6	67.6	48	T.	nw.	w.
Torreón (Coahuila).....	3,720	.....	93.2	48.2	68.4	71	0.06	se.	ne.
Tuxpan (Vera Cruz).....	.....	.....	94.7	54.7	78.3	61	T.	.....	.....
Tuxtla (Gutiérrez).....	1,864	28.10	99.7	54.7	78.3	61	.....	.....	.....
Zacatecas.....	8,015	22.48	83.1	28.8	60.4	38	0.08	.....	.....
Zapotlán (Seminario).....	5,078	.....	86.4	45.7	70.0	45	0.00	.....	.....